

DNA encoding soluble starch synthase of potato - used to produce transgenic plants with increased prodn. of starch or able to produce modified starches

Patent Assignee: HOECHST-SCHERING AGREVO GMBH; INST GENBIOLOGISCHE FORSCHUNG; ABEL G J; KOSSMANN J; SPRINGER F

Inventors: ABEL G J; KOSSMANN J; SPRINGER F

<u>DE 4441408</u>	A1	19960515	DE 4441408	A	19941110	199625 B
WO 9615248	A1	19960523	WO 95EP4415	A	19951109	199626
AU 9539279	A	19960606	AU 9539279	A	19951109	199637
<u>EP 791066</u>	A1	19970827	EP 95937059	A	19951109	199739
JP 11501503	W	19990209	WO 95EP4415	A	19951109	199916
AU 713978	B	19991216	AU 9539279	A	19951109	200010
AU 9956014	A	20000203	AU 9539279	A	19951109	200016 N
<u>US 6130367</u>	A	20001010	WO 95EP4415	A	19951109	200052
			US 97836567	A	19970724	

Priority Applications (Number Kind Date): DE 4441408 A (19941110); AU 9956014 A (19991022)

Cited Patents: 3. journal ref.; WO 9409144

Abstract:

DNA sequences (I) from *Solanum tuberosum* (potato) encoding proteins (soluble starch synthase, SSS) having a C-terminal sequence of the 677 or 459 amino acids as given in the specification, are new. Also new are: (1) DNA, encoding an SSS, that hybridises with (I), excluding sequences from rice; (2) parts or derivs. of (I), produced by recombination, deletion, insertion or substitution, and encoding an SSS; (3) plants and bacteria contg. (I); and (4) the 677 and 459 amino acid SSS.

USE - (I) are used to identify and isolate homologous sequences encoding SSS and enzymes with similar activities from plants or other organisms; to transform prokaryotic or eukaryotic cells, including expression of antisense RNA; to produce transgenic plants which synthesise starch of altered structure (e.g. different amylose/amylopectin ratio; degree of branching of amylopectin; chain length; granule size and degree of phosphorylation) or in increased yield.